



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,166	03/09/2005	Hiroyuki Ishikawa	123740	9349
25944 7590 06/21/2007 OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320				
			EXAMINER CRUZ, MAGDA	
			ART UNIT 2851	PAPER NUMBER
			MAIL DATE 06/21/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/527,166

Applicant(s)

ISHIKAWA, HIROYUKI

Examiner

Magda Cruz

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-8 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 03/09/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figures 9 and 10 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Specification

3. The abstract of the disclosure is objected to because it exceeds 150 words in length. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 3-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishiguchi et al.

Nishiguchi et al. (JP 04-281443 A) disclose:

- Regarding claim 1, a Fresnel lens element group (Figure 1, element 2), each Fresnel lens element being composed of a Fresnel lens surface (Figure 1, element 2a) and a non-lens surface on a surface (Figure 1, element 3) thereof, characterized in that a surface roughness of at least one of the Fresnel lens surface (Figure 1, element 2a) of the Fresnel lens element group (Figure 1, element 2), the non-lens surface of the Fresnel lens element group (Figure 1, element 3), and a sheet surface, on which no Fresnel lens element group is formed, of the Fresnel lens sheet (Figure 1, element 1) is made rougher from the central portion of the Fresnel lens sheet outwardly (clearly illustrated in Figure 1).
- Regarding claim 3, a Fresnel lens sheet (Figure 1, element 1) wherein the difference between the surface roughness of the central portion of the Fresnel lens sheet and the surface roughness of the outer peripheral

portion of the Fresnel lens sheet is 0.1 μm or more to 5.0 μm or less (see abstract, lines 10-15).

- Regarding claim 4, the surface roughness is made rougher continuously or stepwise from the central portion of the Fresnel lens sheet (Figure 1, element 1) outwardly in a radial direction (clearly illustrated in Figures 1 and 2a).
- Regarding claim 5, the surface roughness is made rougher continuously or stepwise from the central portion of the Fresnel lens sheet (Figure 1, element 1) outwardly in a vertical direction (clearly illustrated in Figure 1; see element L).
- Regarding claim 6, the surface roughness is made rougher continuously or stepwise from the central portion of the Fresnel lens sheet (Figure 1, element 1) outwardly in a horizontal direction (clearly illustrated in Figure 1; see element 5).
- Regarding claim 7, the lens shape for diffusing incident light in a vertical direction (clearly illustrated in Figure 1; see element L) is formed on the sheet surface on which no Fresnel lens element group (Figure 1, element 3) is formed.
- Regarding claim 8, a Fresnel lens sheet (Figure 11, element 1) and a lenticular lens sheet (Figure 11, element 30) for diffusing light having passed through the Fresnel lens sheet (Figure 11, element 1).

Allowable Subject Matter

6. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

- a. Regarding claim 2, the prior art of record neither shows nor suggests a Fresnel lens sheet wherein an amount of change ($dRa(x)/dx$) of the surface roughness $Ra(x)$ (μm) of at least one of the Fresnel lens surface of the Fresnel lens element group, the non-lens surface of the Fresnel lens element group, and the sheet surface on which no Fresnel lens element group is formed is preferably $0 < dRa(x) / dx < 1.0$.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yamamoto et al. (JP 05-297465 A) teach a reflection type screen for diagonal projection.

Plummer (US Patent Number 3,718,078) discloses a smoothly granulated optical surface and method for making the same.

Yamada et al. (US Patent Number 4,229,085) show a reflecting type screen.

Art Unit: 2851

Unno et al. (US Patent Number 6,641,985 B2) teach a method for making elements having micro-irregularities.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magda Cruz whose telephone number is (571) 272-2114. The examiner can normally be reached on Monday through Thursday 8:00-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on (571) 272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Magda Cruz
Patent Examiner

June 14, 2007



DIANE LEE
SUPERVISORY PATENT EXAMINER